

Reply to Office Action dated January 18, 2008

REMARKS

Claims 1, 2, 4, 6-10, 12-16, 18 and 20-24 are pending in this application. By this Amendment, FIGs. 6B and 7B and claims 1, 4, 7, 9, 12, 14 and 22 are amended. Various amendments are made for clarity and are unrelated to issues of patentability.

Entry of the amendments is proper under 37 C.F.R. §1.116 because the amendments: (1) place the application in condition for allowance; (2) do not raise any new issues requiring further search and/or consideration; and/or (3) place the application in better form for appeal, should an appeal be necessary. More specifically, the above amendments are merely for clarity and do not raise any new issues. Entry is thus proper under 37 C.F.R. §1.116.

The Office Action objects to the drawings. By this Amendment, FIG. 6B is amended back to its original form and FIG. 7B is amended to identify “T13”. The specification corresponds to these amendments. Withdrawal of the objection is respectfully requested.

The Office Action rejects claims 1-2, 4, 6-10, 12-16, 18 and 20-24 under 35 U.S.C. §103(a) over U.S. Patent 7,023,406 to Nunomura et al. (hereafter Nunomura) in view of newly-cited U.S. Patent 7,180,482 to Homma. The rejection is respectfully traversed with respect to the pending claims.

Independent claim 1 recites setting a number of sustaining pulses in response to an average picture level, and setting a period of each sustaining pulse in proportion to said average picture level, the period of each sustaining pulse including a high width and a low width, the sustaining pulse having a wider period as the average picture level becomes higher. Independent claim 1 also recites that the wider period of the sustaining pulse being obtained by increasing a

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duration of the high width of the sustaining pulse in proportion to the average picture level and maintaining a duration of the low width of the sustaining pulse.

The applied references do not teach or suggest at least these features of independent claim 1. More specifically, the applied references, as a whole, do not teach or suggest that the wider period of the sustaining pulse being obtained by increasing a duration of the high width of the sustaining pulse in proportion to the average picture level and maintaining a duration of the low width of the sustaining pulse.

MPEP §2143 states that to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The Office Action fails to meet these three basic criteria to establish a *prima facie* case of obviousness since the applied references do not teach or suggest all the claim limitations. The Office Action (on page 4) expressly states that Nunomura and Homma, either alone or collectively, do not disclose that a duration of a low width of a sustaining pulse is maintained. Therefore, the Office Action fails to provide a prior art reference that teaches all the claimed limitations.

The Office Action (on page 4) states that the present specification is silent regarding criticality of maintaining a duration of a low width of the sustaining pulse. However, applicants

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respectfully submit that there is no requirement that the specification expressly describe “criticality” of maintaining a low width of the sustaining pulse. Independent claim 1 clearly recites the inventive features and these features are fully supported by the present specification. Applicants also submit that the present specification fully describes advantages of the overall inventive features (including the claimed maintaining). More specifically, the claimed features attempt to overcome problems of the prior art such as discussed on page 4, line 28-page 5, line 33 of the present specification. Applicants believe the specification clearly describes that the inventive features may include the claimed “maintaining.” Thus, applicants disagree with the Office Action’s comments regarding criticality.

The Office Action does not provide any prior art reference teaching or suggesting the feature of “the wider period of the sustaining pulse being obtained by increasing a duration of the high width...and maintaining a duration of the low width” (emphasis added). The Office Action therefore fails to make a *prima facie* case of obviousness. In making an obviousness rejection, the Patent Office may not simply avoid the feature of a wider period including maintaining a low width. Applicants respectfully submit that a *prima facie* case of obviousness has not been met with respect to independent claim 1 (and the other independent claims).

Nunomura also relates to an alleged high width and low width both being changed at a same time with a same pattern. There is no suggestion to modify this feature so as to relate to the specific features of increasing a duration of a high width in proportion to an average picture level and maintaining a duration of a low width of the sustaining pulse. Rather, this alleged

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modification would destroy the express purpose of Nunomura. Nunomura teaches away from the claimed “maintaining.”

Additionally, the Office Action relies on Homma’s FIG. 9 and col. 7, line 15-col. 8, line 25 as teaching a sustaining pulse including a high width and a low width where the duration of the high width is increased and a duration of a low width is decreased. However, independent claim 1 specifically relates to increasing a duration of a high width in proportion to the average picture level and maintaining a duration of the low width. Homma does not suggest the features relating to in proportion to the average picture level and/or maintaining a duration of the low width. Thus, the Office Action’s citation to Homma does not relate to the specifically claimed features. Additionally, Homma teaches away from the claimed “maintaining.”

For at least the reasons set forth above, Nunomura and Homma do not teach or suggest the wider period of the sustaining pulse being obtained by increasing a duration of the high width of the sustaining pulse in proportion to the average picture level and maintaining a duration of the low width of the sustaining pulse. Nunomura and Homma both relate to changing both a high width and a low width. Therefore, Nunomura and Homma do not suggest the claimed maintaining a duration of a low width. Applicants respectfully submit that Nunomura and Homma may not be combined as alleged in the Office Action since they would destroy the express purpose of Nunomura and/or there is no suggestion to make the alleged combination. Thus, independent claim 1 defines patentable subject matter.

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Independent claim 4 recites the wider period being obtained by increasing a duration of the low width of the sustaining pulse in proportion to the average picture level and maintaining a duration of the high width of the sustaining pulse.

For at least similar reasons as set forth above, the applied references do not teach or suggest at least these features of independent claim 4. Furthermore, independent claim 4 relates to increasing a duration of a low width and maintaining a duration of a high width. The Office Action (on pages 6-8) states that Nunomura and Homma do not disclose that the duration of a high width of a sustaining pulse is maintained. Rather, both Nunomura and Homma expressly teach away from the claimed feature of maintaining a duration of a high width. For at least similar reasons as set forth above, the Office Action fails to make a *prima facie* case of obviousness with respect to features of independent claim 4. Additionally, Nunomura and Homma may not be combined as alleged in the Office Action. Thus, independent claim 4 defines patentable subject matter.

Independent claim 12 recites setting a high width of the sustaining pulse in proportion to said average picture level and maintaining a duration of the low width of the sustaining pulse, the high width being set such that the sustaining pulse has a wider period as the average picture level becomes higher.

For at least the reasons set forth above, the applied references do not teach or suggest at least these features of independent claim 12. Thus, independent claim 12 defines patentable subject matter.

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Independent claim 14 recites setting a low width of the sustaining pulse in proportion to said average picture level and maintaining a duration of the high width of the sustaining pulse, the low width being set such that the sustaining pulse has a wider period as the average picture level becomes higher.

For at least the reasons set forth above, the applied references do not teach or suggest at least these features of independent claim 14. Thus, independent claim 14 defines patentable subject matter.

Independent claim 16 recites period setting means for setting a period of a sustaining pulse in such a manner to be in proportion to said average picture level set by the average picture level means, the sustaining pulse including a high width and a low width. Independent claim 16 also recites the sustaining pulse having a wider period as the average picture level becomes higher, the wider period being obtained by increasing a duration of the high width of the sustaining pulse in proportion to the average picture level and by maintaining a duration of the low width of the sustaining pulse.

For at least the reasons set forth above, the applied references do not teach or suggest at least these features of independent claim 16. Thus, independent claim 16 defines patentable subject matter.

Independent claim 18 recites period setting means for setting a period of a sustaining pulse in such a manner to be in proportion to said average picture level set by the average picture level means, the sustaining pulse including a high width and a low width. Independent claim 18 also recites the sustaining pulse having a wider period as the average picture level becomes

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higher, the wider period being obtained by increasing a duration of the low width of the sustaining pulse and by maintaining a duration of the high width of the sustaining pulse, wherein said period setting means sets the low width of the sustaining pulse in proportion to said average picture level.

For at least the reasons set forth above, the applied references do not teach or suggest at least these features of independent claim 18. Thus, independent claim 18 defines patentable subject matter.

Accordingly, each of independent claims 1, 4, 12, 14, 16 and 18 defines patentable subject matter. Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1, 2, 4, 6-10, 12-16, 18 and 20-24 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this,

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concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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Attachments: Annotated Sheets (2)
Replacement Sheets (2)

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FIG. 6B

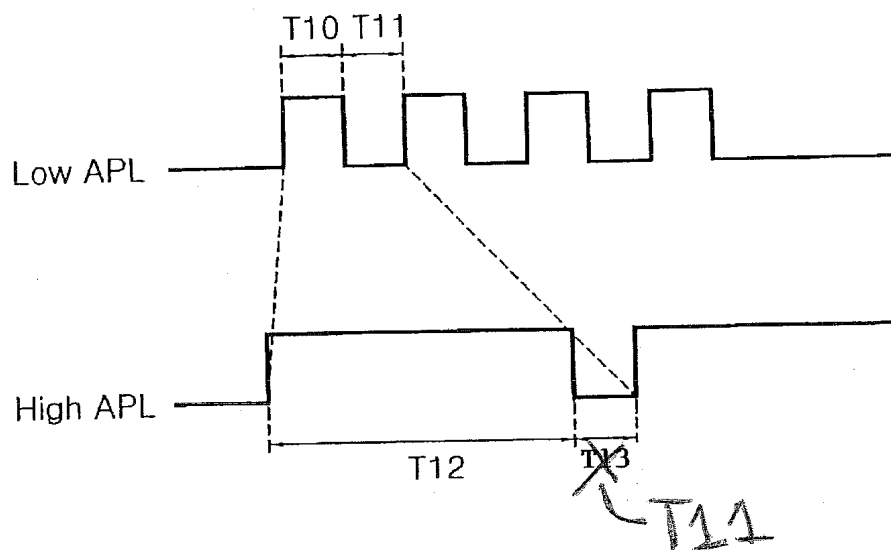


FIG. 7A

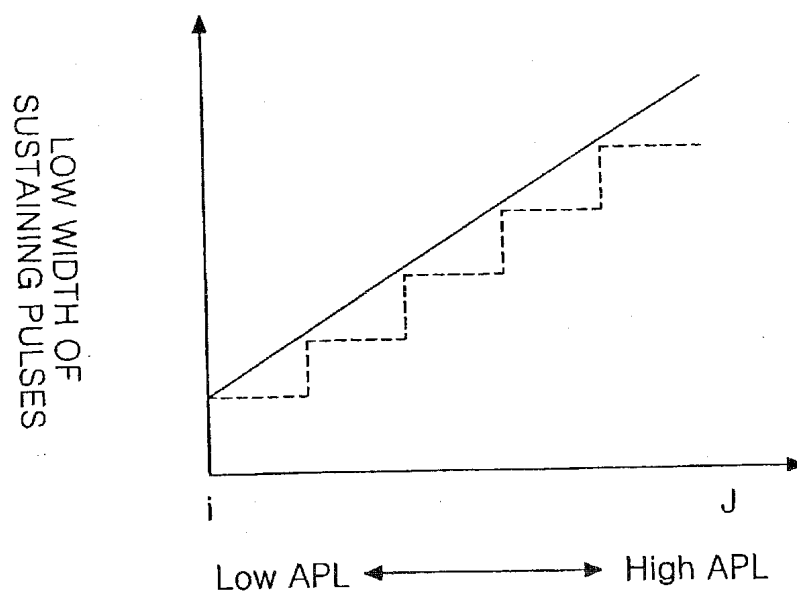


FIG. 7B

